

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference L1694 PCT		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/US2004/019654		International filing date (day/month/year) 17.06.2004		Priority date (day/month/year) 07.07.2003
International Patent Classification (IPC) or national classification and IPC B41M5/00, B43L1/10				
Applicant 3M INNOVATIVE PROPERTIES COMPANY ET AL.				
<p>1. This report is the International preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 09.05.2005		Date of completion of this report 03.11.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Whelan, N Telephone No. +31 70 340-3910		



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/019654

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-8 as originally filed

Claims, Numbers

1-4 received on 14.09.2005 with letter of 14.09.2005

Drawings, Sheets

1/1 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/019654

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2
	No: Claims	1,3,4
Inventive step (IS)	Yes: Claims	2
	No: Claims	1,3,4
Industrial applicability (IA)	Yes: Claims	1-4
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

D1: WO 01/85865 A

D2: EP-A-1 035 141

D3: PATENT ABSTRACTS OF JAPAN vol. 1995, no. 03, 28 April 1995 (1995-04-28) & JP 06 344655 A

D4: WO 9529058

D5: JP 2000127307 (PATENT ABSTRACTS OF JAPAN and japanese fulltext application)

1. Document D4 (see Figure 1/1; page 4, lines 28-page 5, line 7, claims) discloses a sheet comprising a base film (10) , a recording layer (11) comprising mat material composed of silicone particles (13,15) and an acrylic release material (12) wherein the silicone particles are at least partially exposed by protruding from the surface (see Figure) and (see claim 9); the use of small particles, 3 micrometer being specifically disclosed. In present claim 1 the information recording layer is comprised of a material as described in present claim 1; "comprising" does not exclude further components being present in the layer so larger silicone particles are also not excluded to be in the layer. The characteristic of *rewritable and erasable writing* sheet in present claim 1 has no technical clear meaning as it is reasonable to say that one would always find writing means which could be used to write on the sheet and the writing being able to be erased by adapted erasing means: in this case the use of overhead projector sheets which is the intention in D4 seems to teach that you would have a receiver with excellent adhesion for the toner image copied thereon but where you would be able to make annotations with a water based felt pen for example.

Therefore present claim 1 does also not appear novel in view of D4, Art. 33(2) PCT.

The additional features of dependent claims 3 and 4 are also disclosed in D4.

2. However the subject-matter of present claim 2 differs from D4 in that the mat material is present in an amount of 3-10 wt% based on the weight of the information recording material.

In D4 it is 0.05-2% and that would also even include the larger particles mentioned in the claims 7-10 which have a diameter outside the presently claimed range.

The problem could be regarded as , see present page 4, lines 22-27, how to insure good colouring capturing property and writing property while keeping good erasing property and insuring that the particles are sufficiently strongly withhold in the release material. The solution is given by selecting the range as described in present claim 2. This would not have been obvious from the documents D1-D5.

Therefore the subject-matter of present claim 2 appears to be novel and inventive.

3. The subject-matter of present claim 1 differs from each D1 -D3 in that the mat material is composed of cured silicone particles having a particles size from 1 to 3 μm .

The subject-matter of present claim 1 additionally differs from D2 in that the particles are not silicone particles i.e. composed only of silicone but are composed of three different monomer groups in D2. The subject-matter of present claim 1 additionally differs from D3 in that the silicone is present in the form of particles.

For D5 it is seen that the layer comprising the protruding particles would not constitute the "rewritable and erasable information recording layer " as this layer is covered by the cured silicone layer covered thereon. Therefore the structure of the sheet in present claim 1 differs considerably therefrom.

PCT/US2004/019654
3M Innovative Properties Co.
Our Ref.: L1694 PCT

September 14, 2005

NEW CLAIMS

VOSSIUS & PARTNER
PATENTANWÄLTE • RECHTSANWÄLTE
SIEBERTSTR. 4
81675 MÜNCHEN

1. A rewritable and erasable writing sheet comprising a base film, and a rewritable and erasable information recording layer formed on the base film, the information recording layer comprised of a mat material composed of cured silicone particles having a particle size from 1 to 3 μm , and a release material, wherein the silicone particles are at least partially exposed at the surface of the information recording layer.
2. A rewritable and erasable writing sheet according to claim 1, wherein said mat material is present in an amount of 3-10 wt% based on the weight of the information recording layer.
3. A rewritable and erasable writing sheet according to any one of claims 1 to 2, wherein said release material comprises a polymer with long-chain aliphatic groups.
4. A rewritable and erasable writing sheet according to any one of claims 1 to 3, wherein the information recording layer has a thickness of from 1 to 2 μm .